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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,010	12/31/2003	Claudio Taglienti	06365/03501	9330
23460	7590	10/09/2007	EXAMINER	
LEYDIG VOIT & MAYER, LTD			SHIN, KYUNG H	
TWO PRUDENTIAL PLAZA, SUITE 4900				
180 NORTH STETSON AVENUE			ART UNIT	PAPER NUMBER
CHICAGO, IL 60601-6731			2143	
			MAIL DATE	DELIVERY MODE
			10/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/750,010	TAGLIENTI ET AL.
	Examiner	Art Unit
	Kyung H. Shin	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 December 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-49 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-49 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 12/31/03 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/11/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers filed on **12-31-2003**.
2. Claims **1 - 49** are pending. Claims **1, 16, 26, 40, 45** are independent.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims **1, 4 - 8, 10, 11, 15, 26 - 28, 31 - 35, 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Xanthos et al.** (US Patent No. **6, 928,280**) in view of **Zappala et al.** (US PGPUB No. **20020127993**).

Regarding Claim 1, Xanthos discloses a method for measuring latency between a first device and a second device, said first and second devices communicating in accordance with a communications specification, said method comprising:

- a) transmitting, during a communication session between said first and second devices, a message from said second device to said first device, said message provided by said communications specification; (see Xanthos col. 4, lines 3-6: command message (GET command) transmitted between two devices, latency measurement; col. 3, lines 60-63: multiple remote devices (first, second device))

- b) receiving a response message from said first device, said response message provided by said communications specification; (see Xanthos col. 4, lines 3-6: received information based on command message)
- c) computing an elapsed time from transmission of said message to receipt of said response message to determine said latency; (see Xanthos col. 4, lines 6-8: determination, amount of time to receive response from source) and

Xanthos discloses the storage of latency measurement information and its placement in a database. (see Xanthos col. 4, lines 48-53: storage of latency information) Xanthos does not specifically disclose recording said latency parameter in a data record.

However, Zappala discloses:

- d) recording said latency in a latency parameter in a data record. (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11: "... By the time the

adjustments are made, the network may require different adjustments. In addition, the results of the adjustment are difficult to determine quickly. ... ", paragraph [0005], lines 9-12: " ... Because this method does not enable finer adjustments to be made, or even to be detected, this method is not helpful in solving network performance problems that are not easily seen or are geographically limited. ... ")

Regarding Claims 4, 31, Xanthos discloses a method, system in accordance with claims 1, 26, further comprising: transmitting said data containing said latency parameter to an application server. (see Xanthos col. 17, lines 17-24; col. 21, lines 13-24: back end processor (application server), post processing of collected data) Xanthos does not specifically disclose whereby said data record. However, Zappala discloses wherein said data record. (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

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Regarding Claims 5, 32, Xanthos discloses a method, system in accordance with claims 1, 26, wherein said data is provided by said communications specification, said method further comprising: adding said latency parameter to said data. (see Xanthos col. 4, lines 3-6; col. 4, lines 48-53: storage of latency information in database) Xanthos does not specifically disclose whereby said data record. However, Zappala discloses wherein said data record. (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Regarding Claims 6, 33, Xanthos discloses a method, system in accordance with claims 1, 26, wherein said first device and said second device are adapted to communicate wirelessly using said communications specification. (see Xanthos col. 4, lines 11-14: wireless communications between remote units)

Regarding Claims 7, 34, Xanthos discloses a method, system in accordance with

claims 1, 26, wherein said first device and said second device are adapted to communicate via a wire-line portion of a wireless network using said communications specification. (see Xanthos col. 4, lines 9-11: communications network wired and wireless portions)

Regarding Claims 8, 35, Xanthos discloses a method, system in accordance with claims 1, 26, wherein said first device is a mobile station and said second device is a mobility agent. (see Xanthos col. 3, lines 60-63: multiple remote mobile units (mobile station, mobility agents)

Regarding Claims 10, 37, Xanthos discloses a method, system in accordance with claims 1, 26, wherein said message and said response message are link establishment protocol messages. (see Xanthos col. 4, lines 37-38: control link type messages processed)

Regarding Claim 11, Xanthos discloses a method in accordance with claim 1, wherein said step of transmitting is performed after said communication session has been established. (see Xanthos col. 4, lines 3-6: communication session active (established) for latency test (GET data command))

Regarding Claims 15, 28, Xanthos discloses a method, system in accordance with claims 1, 27, wherein said communication session is a data call. (see Xanthos col. 4,

lines 25-31: communication session, a call procedure (mobile call protocols: TDMA, CDMA, GSM) for the transfer of data)

Regarding Claim 26, Xanthos discloses a system for measuring latency comprising: a first device; and a second device adapted for communicating with said first device in accordance with said communications specification and for transmitting a message to said first device, receiving a response message from said first device, computing an elapsed time from transmission of said message to receipt of said response message to determine said latency, and recording said latency in a latency parameter in data; wherein said message and said response message are provided by said communications specification. (see Xanthos col. 3, lines 60-63: multiple remote devices (first, second); col. 4, lines 3-8: latency determination (send message, receive response); col. 4, lines 48-53: storing (recording) latency information)

Xanthos does not specifically disclose whereby said data record. However, Zappala discloses wherein said data record. (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and

solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Regarding Claim 27, Xanthos discloses a system in accordance with claim 26, wherein said second device is adapted for transmitting said message to said first device during a communication session between said first and second devices. (see Xanthos col. 4, lines 3-6: message sent (transmitted), response received for latency determination, GET command processed for send during communications session)

5. Claims 16 - 20, 22, 40, 41 - 43, 45, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Xanthos** in view of **Dyck et al.** (US PGPUB No. 20040260831).

Regarding Claim 16, Xanthos discloses a method, performed by a packet data serving node, for measuring latency, comprising:

- d) computing a wireless access latency based on said first start time and said first stop time. (see Xanthos col. 4, lines 25-31: packet data communications (packet data server node); col. 4, lines 3-8: compute latency, compute difference (latency, amount of time required between start and stop times))

Xanthos does not specifically disclose start, stop times, and echo message transmissions.

However, Dyck discloses:

- a) storing a first start time; (see Dyck paragraph [0013], lines 6-9: start time for message)
 - b) transmitting, to a mobile station, a Link Control Protocol Echo message; (see Dyck paragraph [0052], lines 1-5; paragraph [0056], lines 1-8: echo request/response messages)
 - c) receiving a Link Control Protocol Echo Response message from said mobile station; (see Dyck paragraph [0052], lines 1-5; paragraph [0056], lines 1-8: echo request/response messages)
 - d) storing a first stop time; (see Dyck paragraph [0013], lines 6-9: stop time utilized)
- and

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby said message and said response message are control plane (not normal traffic data) messages. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7: “*...It is apparent that a need exists for an improved system and method for timing request retransmissions that effect re-registration while minimizing unnecessary transmissions. There is also a need for a system and method to enhance mobile device communications, minimize network loads, and optimize network traffic levels by means of optimized Mobile IP re-registration. ...*”)

Regarding Claim 17, Xanthos discloses a method in accordance with claim 16, wherein said step of transmitting is performed during a communication session between said packet data serving node and said mobile station. (see Xanthos col. 4, lines 25-31: packet data communications; col. 3, lines 60-63; col. 8, lines 39-41: remote units (mobile stations))

Regarding Claim 18, Xanthos discloses a method in accordance with claim 1, wherein said step of transmitting is performed. (see Xanthos col. 4, lines 3-6: transmission of request/response message) Xanthos does not specifically disclose whereby the expiration of a timer. However, Dyck discloses wherein the expiration of a timer. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration timer)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby transmission upon expiration of a timer. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 19, Xanthos discloses a method in accordance with claim 12. (see Xanthos col. 3, lines 40-52: performance management system) Xanthos does not specifically disclose whereby said timer is not provided by said communications specification, said method further comprising: implementing said timer in said second

device, said timer configured to expire during said communication session. However, Dyck discloses wherein said timer is not provided by said communications specification, said method further comprising: implementing said timer in said second device, said timer configured to expire during said communication session. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration timer)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby expiration of timer. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 20, Xanthos discloses a method in accordance with claim 16, wherein said packet data serving node and said mobile station are configured to communicate in accordance with a communications specification. (see Xanthos col. 3, lines 60-63; col. 8, lines 39-41: mobile stations; col. 4, lines 20-23: multiple communications protocols (specifications) utilized (GSM, CDMA, TDMA))

Regarding Claim 22, Xanthos discloses a method in accordance with claim 16, further comprising:

- d) computing an internet access latency based on said second start time and said second stop time. (see Xanthos col. 4, lines 25-31: packet data communications (packet data server node); col. 4, lines 3-8: compute latency, compute difference

(latency, amount of time required between start and stop times))

Xanthos does not specifically disclose start, stop times, and registration message transmissions.

However, Dyck discloses:

- a) storing a second start time; (see Dyck paragraph [0013], lines 6-9: start time for message)
- b) transmitting, to a home agent, a Mobile IP Registration Request message; (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent; paragraph [0023], lines 1-11; paragraph [0052], lines 1-5; paragraph [0064], lines 1-13: registration request/response)
- c) receiving a Mobile IP Registration Reply message from said home agent; (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent; paragraph [0023], lines 1-11; paragraph [0052], lines 1-5; paragraph [0064], lines 1-13: registration request/response)
- c) storing a second stop time; (see Dyck paragraph [0013], lines 6-9: start time for message) and

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby start, stop times, registration message capability. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck

paragraph [0012], lines 1-7)

Regarding Claim 40, Xanthos discloses a system for measuring wireless access latency comprising:

a mobile station; and a packet data serving node for wirelessly communicating with said mobile station, said packet data serving node adapted for transmitting a link control protocol echo message to said mobile station, receiving a link control protocol response message from said mobile station, and computing an elapsed time from transmission of said link control protocol message to receipt of said link control protocol response message to determine said wireless access latency. (see Xanthos col. 3, lines 60-63: multiple remote devices (mobile stations); col. 4, lines 37-38: control link type communications; col. 4, lines 25-31: packet data node; col. 4, lines 3-8: latency determination (send message, receive response); col. 4, lines 48-53: storing (recording) latency information) · Xanthos does not specifically disclose whereby echo message to said mobile station, receiving a echo response message. However, Dyck discloses wherein echo message to said mobile station, receiving an echo response message. (see Dyck paragraph [0052], lines 1-5; paragraph [0056], lines 1-8: echo request/response message utilized)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby echo message capability. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network

loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 41, Xanthos discloses a system in accordance with claim 40, wherein said packet data serving node is adapted for transmitting said message to said first device during a communication session with said mobile station. (see Xanthos col. 4, lines 3-6: message sent (transmission) during communication session to determine latency)

Regarding Claim 42, Xanthos discloses a system in accordance with claims 40, wherein said step of transmitting is performed. (see Xanthos col. 4, lines 3-6: transmission of request/response message) Xanthos does not specifically disclose whereby the expiration of a timer. However, Dyck discloses wherein the expiration of a timer. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration timer)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby transmission upon expiration of a timer. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 43, Xanthos discloses a system in accordance with claim 40, wherein said link control protocol message and said link control protocol response message are

provided by a communications specification. (see Xanthos col. 4, lines 37-38: link control messages) Xanthos does not specifically disclose whereby echo message and echo response message are provided by a communications specification. However, Dyck discloses wherein echo message and echo response message are provided by a communications specification (see Dyck paragraph [0052], lines 1-5; paragraph [0056], lines 1-8: echo message(s) utilized)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby echo message request/response processing. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 45, Xanthos discloses a system for measuring internet access latency comprising: and computing an elapsed time from transmission of said mobile internet protocol request message to receipt of said mobile internet protocol reply message to determine said internet access latency. (see Xanthos col. 4, lines 4-8: determine latency (elapsed time from transmission), message sent and response received) Xanthos does not specifically disclose whereby a home agent, and registration request/reply message to home agent. However, Dyck discloses wherein a home agent; and a packet data serving node for communicating with said home agent, said packet data serving node adapted for transmitting a mobile internet protocol

registration request message to said home agent, receiving a mobile internet protocol registration reply message from said home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent; paragraph [0052], lines 1-5; paragraph [0023], lines 1-11; paragraph [0064], lines 1-13: registration message processing)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby a home agent, registration message capability. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 48, Xanthos discloses a system in accordance with claim 45, wherein said mobile Internet protocol request message and said mobile Internet protocol reply message are provided by a communications specification. (see Xanthos col. 4, lines 3-8: message send and response processing) However, Dyck disclose wherein said mobile Internet protocol registration request message and said mobile Internet protocol registration reply message are provided by a communications specification. (see Dyck paragraph [0052], lines 1-5; paragraph [0023], lines 1-11; paragraph [0064], lines 1-13: registration request/reply messages processed)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby registration request and registration reply message. One of ordinary skill in the art would have been motivated to employ

the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

6. Claims 2, 3, 9, 12 - 14, 21, 23 - 25, 29, 30, 36, 38, 39, 44, 46, 47, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Xanthos-Zappala** and further in view of **Dyck**.

Regarding Claim 2, Xanthos discloses a method in accordance with claim 1. (see Xanthos col. 3, lines 40-52: performance measurement system; col. 4, lines 37-38: operational control link processing) Xanthos does not specifically disclose whereby said message and said response message are control plane messages. However, Dyck discloses wherein said message and said response message are control plane messages. (see Dyck paragraph [0014], lines 5-10: control (registration type) messages, not normal data traffic)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby said message and said response message are control plane (not normal traffic data) messages. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 3, Xanthos discloses a method in accordance with claim 1. (see Xanthos col. 3, lines 40-52: performance management system) Xanthos does not specifically disclose whereby said message and said response message do not affect a session data usage of a user. However, Dyck disclose wherein said message and said response message do not affect a session data usage of a user. (see Dyck paragraph [0052], lines 1-5; paragraph [0023], lines 1-11; paragraph [0064], lines 1-13: control (registration type) messages, not normal data traffic)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby said message and said response message are control plane (not normal traffic data) messages. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 9, Xanthos discloses a method in accordance with claim 1, wherein said first device is a remote unit and said second device is a remote unit (mobility agent). (see Xanthos col. 3, lines 60-63: multiple remote units; col. 4, lines 3-6: message communications between remote units) Xanthos does not specifically disclose whereby a home agent. However, disclose wherein a home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent, mobile unit (mobility agent) communications)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as

taught by Dyck to enable the capability whereby a home agent. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 12, Xanthos discloses a method in accordance with claim 1, wherein said step of transmitting is performed. (see Xanthos col. 4, lines 3-6: transmission of request/response message) Xanthos does not specifically disclose whereby the expiration of a timer. However, Dyck discloses wherein the expiration of a timer. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration timer)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby transmission upon expiration of a timer. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 13, Xanthos discloses a method in accordance with claim 12, wherein said timer is provided by said communications specification. (see Xanthos col. 4, lines 3-6: transmission of request/response message) Xanthos does not specifically disclose whereby said timer is provided by said communications specification. However, Dyck discloses wherein said timer is provided by said communications specification. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12:

expiration time part of registration process (communications specification))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby timer is provided by said communications specification. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claims 14, Xanthos discloses a method in accordance with claim 12. (see Xanthos col. 3, lines 40-52: performance management system) Xanthos does not specifically disclose whereby said timer is not provided by said communications specification, said method further comprising: implementing said timer in said second device, said timer configured to expire during said communication session. However, Dyck discloses wherein said timer is not provided by said communications specification, said method further comprising: implementing said timer in said second device, said timer configured to expire during said communication session. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration timer)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby expiration of timer. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claims 21, 25, Xanthos discloses a method in accordance with claims 20, 22, wherein said communications specification provides for a data record, said method further comprising:

- b) recording said wireless access latency in said wireless access latency parameter.
(see Xanthos col. 4, lines 48-53: storage of latency access parameter)

Xanthos discloses wherein adding a wireless access latency parameter to said data. (see Xanthos col. 4, lines 11-14: wireless communications; col. 4, lines 3-6; col. 4, lines 48-53: storage of latency within data) Xanthos does not specifically disclose whereby said data record.

However, Zappala discloses:

- a) adding a parameter to said data record; (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005],

lines 9-12)

Regarding Claim 23, Xanthos discloses a method in accordance with claim 22, wherein said further comprises said Internet access latency for a processing time. (see Xanthos col. 3, lines 40-52: performance management system) However, Zappala discloses wherein adjusting said Internet access latency for a processing time. (see Zappala paragraph [0018], lines 1-10; performance measurement system; paragraph [0025], lines 1-11; paragraph [0034], lines 8-15: adjust performance parameters (adjust latency))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Xanthos-Zappala does not specifically disclose whereby said Internet access latency for a processing time associated with said home agent. However, Dyck discloses wherein further comprises said Internet access latency for a processing time associated with said home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent)

It would have been obvious to one of ordinary skill in the art to modify Xantho-

Zappala as taught by Dyck to enable the capability whereby said Internet access latency for a processing time associated with said home agent. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 24, Xanthos discloses a method in accordance with claim 22, wherein said computing said Internet access latency further comprises said internet access latency for an estimated processing time. (see Xanthos col. 3, lines 40-52: performance management system) Xanthos does not specifically disclose whereby further comprises adjusting said Internet access latency for an estimated processing time. However, Zappala discloses wherein further comprises adjusting said Internet access latency for an estimated processing time. (see Zappala paragraph [0018], lines 1-10; performance measurement system; paragraph [0025], lines 1-11; paragraph [0034], lines 8-15: adjust performance parameters (adjust latency))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for adjusting said Internet access latency for an estimated processing time. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Xanthos-Zappala does not specifically disclose whereby said Internet access latency for an estimated processing time associated with said home agent. However, Dyck discloses wherein further comprises said Internet access latency for an estimated processing time associated with said home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent)

It would have been obvious to one of ordinary skill in the art to modify Xanthos-Zappala as taught by Dyck to enable the capability whereby said Internet access latency for an estimated processing time associated with said home agent. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 29, Xanthos discloses a system in accordance with claim 26. (see Xanthos col. 3, lines 40-52: performance measurement system; col. 4, lines 37-38: operational control link processing) Xanthos does not specifically discloses whereby said message and said response message are control plane messages. However, Dyck discloses wherein said message and said response message are control plane messages. (see Dyck paragraph [0014], lines 5-10: control (registration type) messages, not normal data traffic)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby said message and said response message are control plane (not normal traffic data) messages. One of ordinary skill in

the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 30, Xanthos discloses a system in accordance with claim 26. (see Xanthos col. 3, lines 40-52: performance management system) Xanthos does not specifically disclose whereby said message and said response message do not affect a session data usage of a user. However, Dyck disclose wherein said message and said response message do not affect a session data usage of said first device. (see Dyck paragraph [0052], lines 1-5; paragraph [0023], lines 1-11; paragraph [0064], lines 1-13: control (registration type) messages, not normal data traffic)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby said message and said response message are control plane (not normal traffic data) messages. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 36, Xanthos discloses a system in accordance with claim 26, wherein said first device is a remote unit and said second device is a remote unit (mobility agent). (see Xanthos col. 3, lines 60-63: multiple remote units; col. 4, lines 3-6: message communications between remote units) Xanthos does not specifically

disclose whereby a home agent. However, disclose wherein a home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent, mobile unit (mobility agent) communications)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby a home agent. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 38, Xanthos discloses a system in accordance with claim 26, wherein said step of transmitting is performed. (see Xanthos col. 4, lines 3-6: transmission of request/response message) Xanthos does not specifically disclose whereby the expiration of a timer. However, Dyck discloses wherein the expiration of a timer. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration timer)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby transmission upon expiration of a timer. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 39, Xanthos discloses a system in accordance with claim 38, wherein said timer is provided by said communications specification. (see Xanthos col. 4, lines

3-6: transmission of request/response message) Xanthos does not specifically disclose whereby said timer is provided by said communications specification. However, Dyck discloses wherein said timer is provided by said communications specification. (see Dyck paragraph [0013], lines 9-14; paragraph [0016], lines 8-12: expiration time part of registration process (communications specification))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby timer is provided by said communications specification. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 44, Xanthos discloses a system in accordance with claim 43, wherein said communications specification provides for a data, said packet data serving node further adapted for adding a wireless access latency parameter to said data and recording said wireless access latency in said wireless access latency parameter. (see Xanthos col. 4, lines 3-8: determination of latency; col. 4, lines 48-53: storage of latency information) Xanthos does not specifically disclose whereby said data record. However, Zappala discloses wherein said data record. (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Regarding Claim 46, Xanthos discloses a system in accordance with claim 45, wherein said packet data serving node. (see Xanthos col. 3, lines 40-52: performance management system; col. 4, lines 25-31: packet data node)

Xanthos does not specifically disclose whereby adjusting said Internet access latency for a processing time associated with said home agent. However, Zappala discloses whereby adjusting said Internet access latency for a processing time. (see Zappala paragraph [0018], lines 1-10; performance measurement system; paragraph [0025], lines 1-11; paragraph [0034], lines 8-15: adjust performance parameters (adjust latency))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for adjusting said Internet access latency for a processing time. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Xanthos-Zappala does not specifically disclose whereby said Internet access latency for a processing time associated with said home agent. However, Dyck discloses wherein further adapted for said Internet access latency for a processing time associated with said home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent)

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Dyck to enable the capability whereby said internet access latency for a processing time associated with said home agent. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 47, Xanthos discloses a system in accordance with claim 45, wherein said packet data serving node. (see Xanthos col. 3, lines 40-52: performance management system; col. 4, lines 25-31: packet data node)

Xanthos does not specifically disclose whereby adjusting said Internet access latency for an estimated processing time. However, Zappala disclose wherein adjusting said Internet access latency for an estimated processing time. (see Zappala paragraph [0018], lines 1-10; performance measurement system; paragraph [0025], lines 1-11; paragraph [0034], lines 8-15: adjust performance parameters (adjust latency))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as

taught by Zappala to enable the capability for adjusting said Internet access latency for an estimated processing time. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Xanthos-Zappala does not specifically disclose whereby said Internet access latency for an estimated processing time associated with said home agent. However, Dyck disclose wherein said Internet access latency for an estimated processing time associated with said home agent. (see Dyck paragraph [0023], lines 1-11; paragraph [0046], lines 1-5: home agent)

It would have been obvious to one of ordinary skill in the art to modify Xanthos-Zappala as taught by Dyck to enable the capability whereby said Internet access latency for an estimated processing time associated with said home agent. One of ordinary skill in the art would have been motivated to employ the teachings of Dyck in order to enable the capability to enhance mobile communications, minimize network loads, and optimize network traffic. (see Dyck paragraph [0012], lines 1-7)

Regarding Claim 49, Xanthos discloses a system in accordance with claim 48, wherein said communications specification provides for a data, said packet data serving node further adapted for adding an Internet access latency parameter to said data and recording said internet access latency in said Internet access latency parameter. (see

Xanthos col. 4, lines 3-8; col. 4, lines 48-53: storing (recording) latency information)
Xanthos does not specifically disclose whereby said data record. However, Zappala discloses wherein said data record. (see Zappala paragraph [0018], lines 1-10: performance management system; paragraph [0032], lines 1-4; paragraph [0033], lines 7-10; paragraph 0037], lines 2-6: performance parameters stored within call data records (data records))

It would have been obvious to one of ordinary skill in the art to modify Xanthos as taught by Zappala to enable the capability for the storage of performance information in data records. One of ordinary skill in the art would have been motivated to employ the teachings of in order to enable the capability to quickly determine adjustments, and solving not easily seen problems or geographically limited problems. (see Zappala paragraph [0004], lines 4-11; paragraph [0005], lines 9-12)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9:30 am - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KHS

September 17, 2007